

Work Order ID 126989***126989***

Page 1

Wednesday, December 03, 2014 12:50:31 P

Item ID: D4640-15

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Ceiling Protector

Start Date: 12/18/14 Start Qty: 5.00

5

Cust Item ID:

Required Date: 12/23/14 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan:

Date: 14-12-03

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D4640

D

100

0.00

100

Waterjet

FLOW CNC Waterjet

Memo

0.00

***Confirm if parts are trimmed or untrimmed prior to cutting ***

Cut as per dwg

Prog Rev: D

Dwg Rev: D

Deburr as required

5

0

DAS
23
9-89

14-12-16

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Quality Control

Memo

0.00

5

0

DAS
23
9-89

14-12-16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 126989***126989***

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Wednesday, December 03, 2014 12:50:31 P

Item ID: D4640-15 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Ceiling Protector
Start Date: 12/18/14 Start Qty: 5.00 ***5*** Cust Item ID:
Required Date: 12/23/14 Req'd Qty: 5.00 ***5*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							38 9-89
120									
QC	Memo	0.00							
Quality Control	USE TEMPLATE TO MARK HOLE LOCATIONS WITH A FINE POINT MARKER ON TEXTURED SIDE								DEC 17 2014
130	Identify as per dwg & Stock Location: <i>Flow</i>	0.00							
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

15/1/5

4-12B

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Picklist Print

Wednesday, December 03, 2014 12:50:31 PM

Page 1

Work Order ID: 126989

126989

Parent Item: D4640-15

D4640-15

Parent Item Name: Ceiling Protector

Start Date: 12/18/14

Required Date: 12/23/14

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP REV:A 12.05.08 NEW ISSUE DD VERF:EC
12.10.17 AS PER REV.B VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased		No		100	sf	2,486.730	16	84.21053		DAS 23 9-89	
MI FXS 093-F6006-07										**	80		14-12-16
GE PLASTICS LEXAN SHEET (Grey)													

Location

Loc Qty

Loc Code

MAT023

2486.73032

114459

229.26

123105

38

124501

543.5

m128668

181.35

m129014

102.33332

m129471

7.31

m129738

1384.977

129738

DQA: _____ Date: _____



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Doc/Data									
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Process									
Supplier									
Training									
Transport									
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		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

DART AEROSPACE LTD		Work Order:	126989
Description: Ceiling Protector		Part Number:	D4640-15
Inspection Dwg: D4640	Rev: D	Page 1 of 1	

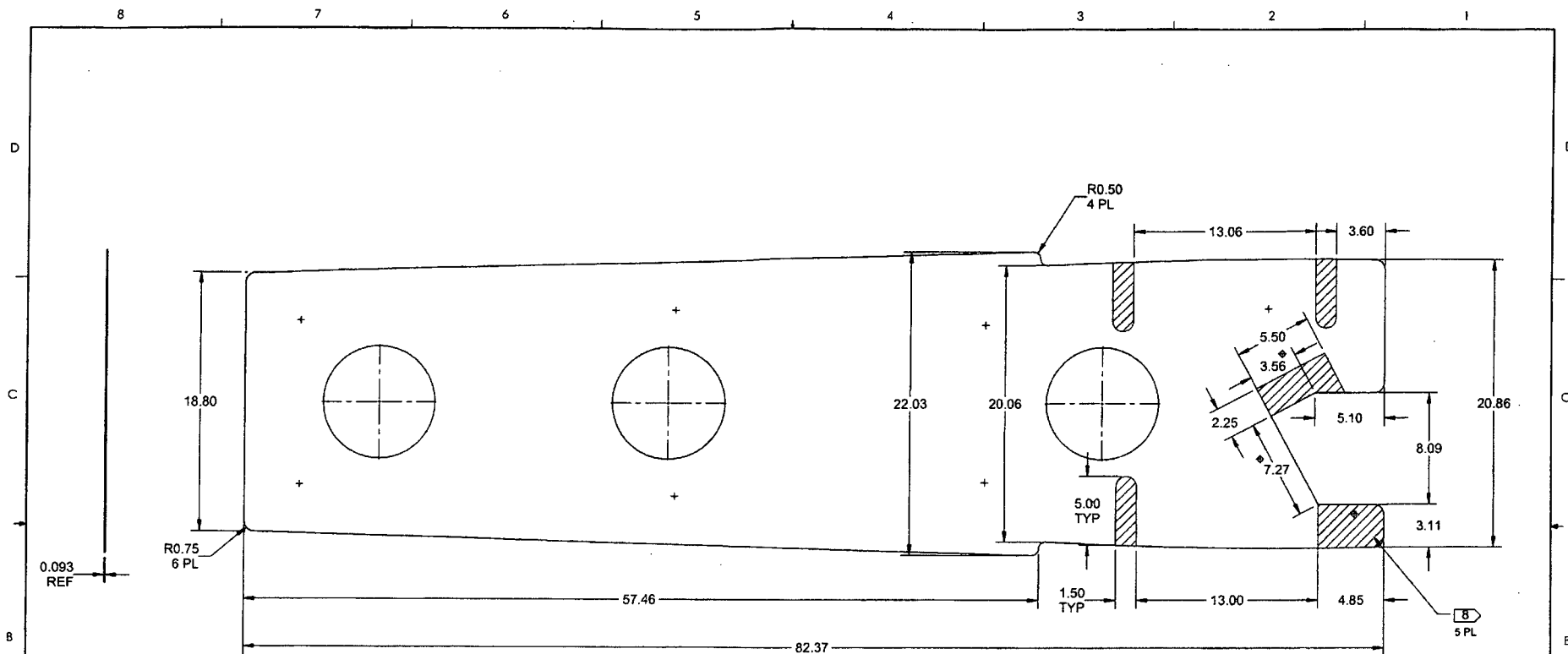
FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
18.80	+/-0.030	18.80	✓		T	Jhm 07
22.03	+/-0.030	22.03	✓		T	
20.06	+/-0.030	20.06	✓		T	
13.06	+/-0.030	13.06	✓		T	
3.60	+/-0.030	3.60	✓		V	
8.09	+/-0.030	8.09	✓		V	
20.86	+/-0.030	20.86	✓		T	
3.11	+/-0.030	3.11	✓		V	
7.27	+/-0.030	7.27	✓		V	
5.10	+/-0.030	5.10	✓		V	
4.85	+/-0.030	4.85	✓		V	
13.06	+/-0.030	13.06	✓		T	
1.50	+/-0.030	1.50	✓		V	
5.00	+/-0.030	5.00	✓		V	
57.46	+/-0.030	57.46	✓		T	
82.37	+/-0.030	82.37	✓		T	
Ø8.13	+0.012/-0.001	8.13	✓		V	
6.77	+/-0.030	6.77	✓		V	
5.72	+/-0.030	5.72	✓		V	
6.13	+/-0.030	6.13	✓		V	
2.21	+/-0.030	2.21	✓		V	
0.88	+/-0.030	0.88	✓		V	
7.78	+/-0.030	7.78	✓		V	
7.47	+/-0.030	7.47	✓		V	
Ø0.375	+0.006/-0.001	0.375	✓		V	
9.73	+/-0.030	9.73	✓		V	
21.00	+/-0.030	21.00	✓		T	
31.28	+/-0.030	31.28	✓		T	
4.00	+/-0.030	4.00	✓		V	
27.23	+/-0.030	27.23	✓		T	
22.28	+/-0.030	22.28	✓		T	
20.36	+/-0.030	20.36	✓		T	
0.093	DAS +/-0.010	0.093	✓		V	

Measured by:	9-89	Audited by:	DAS 38	Preliminary Approval:	
Date:	14/12-16	Date:	9-89	Date:	

DEC 17 2014

Rev	Date	Change	Revised by	Approved
A	12.09.26	New Issue	KJ	
B	13.02.27	Dwg Rev updated	KJ	



D4640-15 CEILING PROTECTOR
TEXTURED SIDE SHOWN

RELEASED
2013-01-10
MPO

NOTES:

- 1) MATERIAL: F6006-GY5B133 GRAY LEXAN SHEET (SUEDE/POLISHED) 0.093 THICK
REF DART SPEC MLEXS.093-F6006-07
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1 ON SMOOTH SIDE
- 7) WEIGHT: 5.99 lbs (TRIMMED WEIGHT = 5.78 lbs)
- 8) IF CUSTOMER REQUESTS "TRIMMED KIT" ON PURCHASE ORDER:
 - DRAW 0.50" CROSS ON TEXTURED SIDE AT INDICATED LOCATIONS USING PERMANENT INK MARKER
 - TRIM AND REMOVE SHADED AREAS

Handwritten: 12-03 126089

DESIGN	XQF	DART AEROSPACE LTD	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. D
MFG. APPR.	<i>[Signature]</i>	D4640	SHEET 8 OF 9
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	BAGGAGE PROTECTOR	NTS
DATE	12.12.18	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

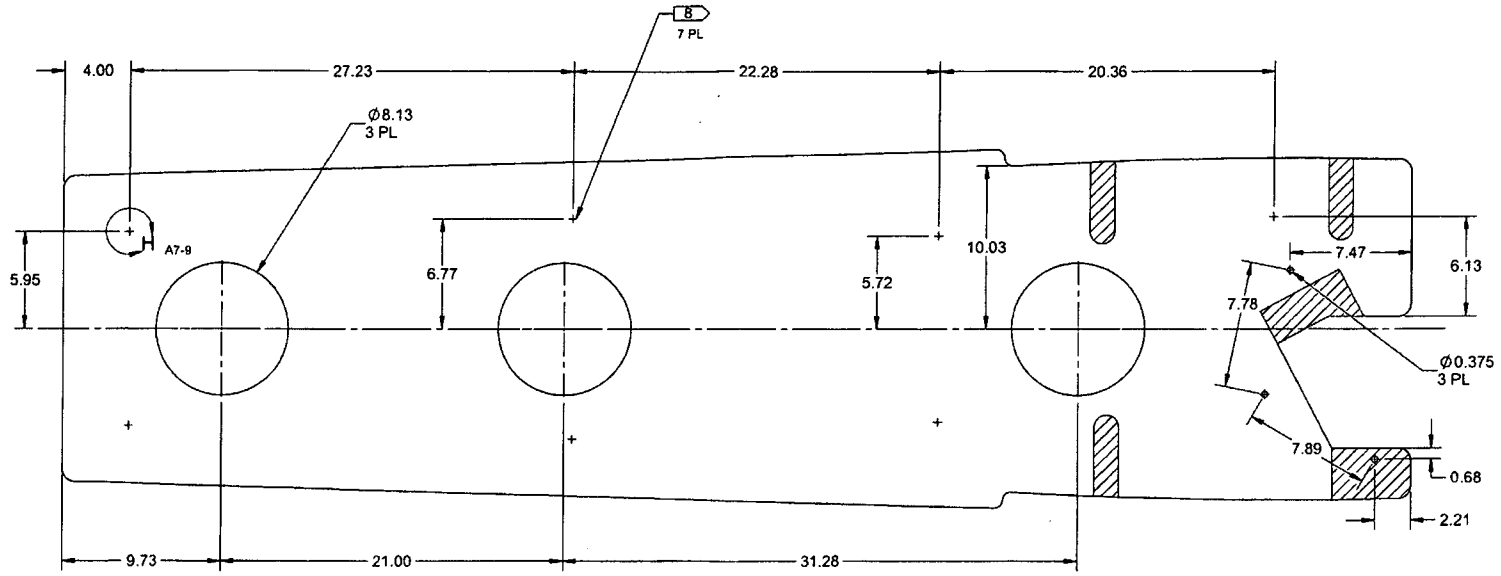
8 7 6 5 4 3 2 1

D

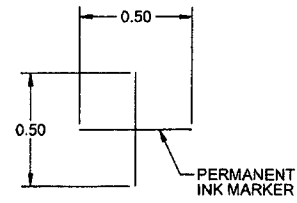
C

B

A



D4640-15 CEILING PROTECTOR
SUPPLEMENTAL VIEW



DETAIL H C7-9
NOT TO SCALE
TRIMMED KIT ONLY

RELEASED
R 2013-01-10
ND

DESIGN	XDF	DART AEROSPACE LTD	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. D
MFG. APPR.	<i>[Signature]</i>	D4640	SHEET 9 OF 9
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	BAGGAGE PROTECTOR	NTS
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8 7 6 5 4 3 2 1